

Carolina Lance

Elliptio angustata

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DESCRIPTION

Taxonomy and Basic Description

The shell of the Carolina Lance is elongate and elliptical or subrhomboid in shape. It is slightly compressed and rather thin, with a length of up to 140 mm (5.6 in.). The outer shell is olive but may become nearly black in older individuals; the inner shell is purple in color (Bogan and Alderman 2004, 2008).

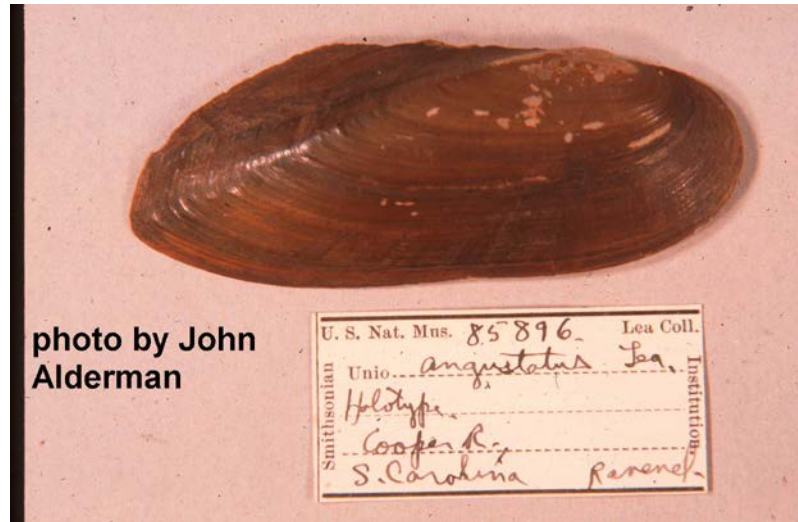


photo by John Alderman

Status

NatureServe (2011) identifies the Carolina Lance with a global ranking of apparently stable (G4) and a state ranking of vulnerable (S3) in South Carolina.

POPULATION SIZE AND DISTRIBUTION

The Carolina Lance is known to range from the Ogeechee River in Georgia north to the Potomac River in Virginia and Maryland. This species is widespread within South Carolina (Johnson 1970). It is occasionally found in abundance in several locations throughout the State including some stretches of the Great Pee Dee River, the Little Pee Dee River, and the Black River, but in other locations it is uncommon (Taxonomic Expertise Committee meeting 2004).

HABITAT AND NATURAL COMMUNITY REQUIREMENTS

The Carolina Lance seems to prefer sand and sandy gravel substrates and is often found at the edge of aquatic vegetation (Bogan and Alderman 2004, 2008).

CHALLENGES

Observations suggest that this species is sensitive to channel modification, pollution, sedimentation, and low oxygen conditions, but we do not know how the relative sensitivity of this species to these challenges compares to other species.

CONSERVATION ACCOMPLISHMENTS

The breeding season of *E. angustata* has been studied in the Broad River (Price and Eads 2011).

CONSERVATION RECOMMENDATIONS

- Continue to conduct surveys and monitor Carolina Lance population densities.
- Conduct genetic analyses to determine the relationship between the Carolina Lance and other species in the genus *Elliptio* with similar morphology.
- Promote land stewardship practices through educational programs both within critical habitats with healthy populations and in other areas that contain available habitat for the Carolina Lance.
- Protect critical habitats for the Carolina Lance from future development and further habitat degradation by following Best Management Practices (BMP) and protecting and purchasing riparian areas.
- Encourage responsible land use planning.
- Consider this species' needs when participating in the environmental permit review process.
- Educate off-road motor vehicle operators of the negative effects of crossing streams at multiple locations and using stream bottoms as trails.
- Conduct further research to determine the degree of sensitivity of the Carolina Lance to various point and non-point sources of pollution and land use impacts.

MEASUREMENTS OF SUCCESS

Persistence of existing populations and an increase in numbers where the Carolina Lance is currently rare will indicate successes.

LITERATURE CITED

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